



**THIRD THURSDAY
BREAKFAST BROADCAST**

Potable Water: A Public Health Issue

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Thanks to our Sponsors:

- University at Albany School of Public Health
- NYS Department of Health
- NYS Community Health Partnership

Special Thanks to:

- NYS Association of County Health Officials
- NYS Nurses Association

Viewer Call-In

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Evaluations

**You may complete an evaluation and apply for
continuing education credits by going to
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**[http://www.albany.edu/sph/coned/
t2b2water.html](http://www.albany.edu/sph/coned/t2b2water.html)**

**Your feedback is invaluable to the future
development and funding of this program.**

Thank you!

University At Albany School of Public Health

**For more information please contact us
or log on to our website.**

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Potable Water: A Public Health Issue

March 18, 2004

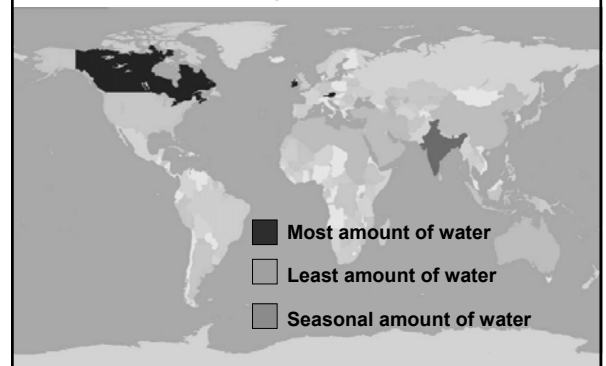
Global Water Facts

- 1.1 billion people are without access to safe water.
 - One out of 6 people in the world.
- 2.4 billion people, do not have access to adequate sanitation.
 - Two out of 5 people in the world.

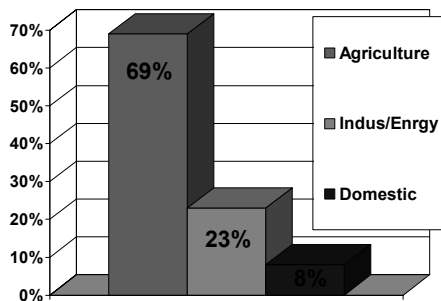
Our Planet's Water

- 97% seawater
- 3% freshwater
 - Only 1% of that 1% is available for human consumption.

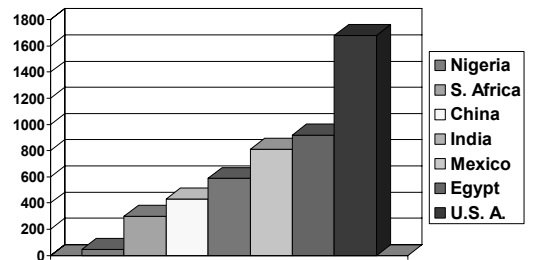
Water Supply and Distribution



How We Use Water



Annual Per Capita Water Usage



Water Consumption

- Average American uses about 101 gal. of water each day.
- Average African uses about 7 gal. of water each day.



Water Comparison

- One flush of your toilet uses as much as the average person in a developing country uses in all of their washing, cleaning, cooking and drinking daily.



Water and Disease



Water and Disease

- Water is implicated in 80% of all sickness and disease worldwide



Water and Disease

- 6,000 children die *every day* from diseases associated to lack of fresh drinking water, inadequate sanitation and poor hygiene.

Sum = 20 jumbo jets crashing every day.

Water and Disease

- Worldwide every 15 seconds a child under the age of 5 will die needlessly as a result of water related illnesses.
- Diarrhea causes 2 million deaths/year, mostly amongst children under the age of five.

Water and Disease

- In the past 10 years, diarrhea has killed more children than all the people lost to armed conflict since WWII.

Diseases Transmitted by Water

- Cholera
- Typhoid
- Bacillary Dysentery
- Infectious Hepatitis
- Giardias



WHO, "World Health Report 2002"

Diseases Caused by Lack of Water

- Scabies
- Skin Sepsis and Ulcers
- Yaws
- Leprosy
- Trachoma
- Dysenteries
- Ascariasis



WHO, "World Health Report 2002"

World Health Organization

"I am utterly convinced that the number of water taps per 1,000 population will be an infinitely more meaningful health indicator than the number of hospital beds per 1,000 population."

Dr. Halfdan Mahler
Director-General
World Health Organization

UN Declaration of the Rights of the Child



Another child will die in the time it takes to read this sentence.
And the death of that child, a child who had a name, and a personality, a family and a future, is a rebuke to all humanity. It is no longer necessary. It is therefore no longer acceptable."

-State of the World's Children
UNICEF

There is no "over there"
The fact is

Disease Travels!

Water Is Essential for Development

- Without access to clean water no other development goals can be met.
 - Economic development
 - Social development
 - Education
 - Infrastructure
 - Higher standards of public health.

Water in the U.S.

- We consume 75 gallons of water/per person/per year...and that number is rising steadily.
- The cost of water utilities has risen significantly.

OUR Relationship to Water Is Global, too

- The world is now using 52% of the available freshwater.
- Water consumption worldwide is growing at twice the rate of population.
- Half of the world's rivers and lakes are seriously polluted.
- Water is recycled, not produced.

OUR Relationship to Water Is Global, too

- Global warming affects ALL water
 - Acid rain
 - Rising sea levels infiltrating aquifers
 - Extreme weather conditions such as droughts and floods

Many Fresh Water Sources Are Contaminated

- Industrial chemicals
- Excessive silt
- Agricultural run-off
 - Chemical fertilizers and pesticides
 - Hormones and antibiotics used in livestock

Watering The Desert

- "Water Wars" started in the '30's when LA began transporting water.
- The Colorado River NO LONGER MEETS THE SEA.

Watering The Desert (cont)

- Arizona uses 4,000 mgd of water per day
- Las Vegas uses 108,952,000 gallons of water per year

Municipal Water Utilities are Facing Tough Times

- Aging infrastructure
- Increasing regulatory demands
- Growth related pressure
- Shrinking rate base

2 Choices

- Do more with less
- Do less with less

Do More With Less

- Decreasing availability
- Increasing economic pressures
- Environmental issues
- Excess and waste of water
- Privatization vs. Public Utilities

Privatization of Water Utilities Atlanta, Georgia

- Rates scheduled to increase
- Contracted company failed to maintain facilities adequately
- Enormous amounts of time, energy and legal fees were spent in getting OUT of the contract.

Privatization vs Public Water Utilities

- *Not all* privatization is bad
- *Not all* publicly run utilities run efficiently
- Many community water systems were historically private – as long as they were profitable.
- Access to capital is essential.

Buyer Beware

- Know your options
- Avoid “lowest cost” approach
- Invest in careful procurement and service contract
- Scope and track a detailed work effort
- Enforce responsibility: measurement, monitoring and reporting
- If it sounds too good to be true – *It Is!*
- It's not over till it's over!

Effective Water Management Is a Result of Good Leadership

- Knowledge
- Skill
- Experience
- Technology
- Access to capital
- Financial management
- Ability to adjust to needed change
- Discipline or management systems

How Much Water Does It Take To Make...

- Typical dinner meal 3,000 gal
- 1 bushel of wheat 15,000 gal
- 1 dozen eggs 6,000 gal
- Veal Cutlet 2,600 gal
- Chicken 400 gal

How Much Water Does It Take To Make...

- A Newspaper 150 gal
- A new car 39,000 gal
- Barrel of Beer 1,500 gal
- 4 Tires 2,100 gal

Solutions

- Improving water access worldwide
- Developing an awareness of how water impacts social, economic and environmental well being for all
- Improved agricultural practices
- Conserving water
- Protecting water purity and availability



Typical WFP Projects Include



- Hand washing stations
- Hygiene education
- Latrines
- Showers
- Laundry stations
- Stand pipes
- Gravity-fed water systems

Water IS a Public Health Issue

***Without clean water for
ALL
Public Health
is compromised
for EVERYONE.***

What You Can Do

- Get involved!
- Encourage conservation
- Support clean water policies
- Volunteer on water issues
- **NEVER TAKE WATER FOR GRANTED!**

Be Aware

- Of proposed construction of dams or major aquaducts
- Of contract negotiations for water utilities
- Of threats to our fresh water sources.
- And consider the costs – *In Terms Of Water* – of industry, development, agricultural run-off.

**“If the wars of the 20th Century
were fought over oil – the wars
of the 21st century will be
fought over
water.”**

- Ismail Serageidin, World Bank VP



John Williams
914-993-2000
www.hdrinc.com

Evaluations

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and apply for CEU's at:

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